

- c) adding at least one nucleic acid polymerase,
- d) incubating the mixture of step c), under conditions which allow said at least one nucleic acid polymerase to be active,
- e) contacting the mixture of step d) with at least one solid phase,
- f) [detecting and/or quantitating the amount of] measuring total nucleic acid in said sample by [detecting and/or quantitating] measuring the total amount of said at least one detectable species bound to said solid phase.

2. (Twice Amended) A method for [the detection and/or quantitation of] measuring total nucleic acid in a sample, which comprises:

- a) mixing at least one random primer at least 4 nucleotides in length, having at least one binding species with a sample nucleic acid,
- b) adding at least one nucleotide triphosphate having at least one detectable species and optionally at least one second nucleotide triphosphate,
- c) adding at least one nucleic acid polymerase,
- d) incubating the mixture of step c), under conditions which allow said at least one nucleic acid polymerase to be active,
- e) contacting the mixture of step d) with at least one solid phase,
- f) [detecting and/or quantitating the amount of] measuring total nucleic acid in said sample by [detecting and/or quantitating] measuring the total amount of said at least one detectable species bound to said solid phase.

3. (Twice Amended) A method for [the detection and/or quantitation of] measuring total nucleic acid in a sample, which comprises:

- a) mixing at least one random primer at least 4 nucleotides in length with a sample nucleic acid,
- b) adding at least one nucleotide triphosphate having at least one binding species and optionally at least one nucleotide triphosphate having at least one detectable species and optionally at least one second nucleotide triphosphate,
- c) adding at least one nucleic acid polymerase,
- d) incubating the mixture of step c), under conditions which allow said at least one nucleic acid polymerase to be active,
- e) contacting the mixture of step d) with at least one solid phase,
- f) [detecting and/or quantitating the amount of] measuring total nucleic acid in said sample by [detecting and/or quantitating] measuring the total amount of said at least one detectable species or the amount of said at least one binding species bound to said solid phase.

4. (Twice Amended) A method for [the detection and/or quantitation of] measuring total nucleic acid in a sample, which comprises:

- a) mixing at least one first labeled random primer at least 4 nucleotides in length having at least one binding species and at least one second random primer at least 4 nucleotides in length having at least one detectable species, with a sample nucleic acid
- b) adding at least one nucleic acid ligase
- c) incubating the mixture of step b), under conditions which allow said at least one nucleic acid ligase to be active,
- d) contacting the mixture of step c) with at least one solid phase,
- e) [detecting and/or quantitating the amount of] measuring total nucleic acid in said

sample by [detecting and/or quantitating] measuring the total amount of said at least one detectable species or the amount of said at least one binding species bound to said solid phase.

5. (Twice Amended) A method for [the detection and/or quantitation of] measuring total nucleic acid in a sample, which comprises:

- a) mixing at least one first labeled random primer at least 4 nucleotides in length having at least one binding species and at least one second random primer at least 4 nucleotides in length having at least one detectable species, with a sample nucleic acid
- b) adding at least one nucleic acid ligase and at least one nucleic acid polymerase
- c) incubating the mixture of step b), under conditions which allow said at least one nucleic acid ligase and at least one nucleic acid polymerase to be active,
- d) contacting the mixture of step c) with at least one solid phase,
- e) [detecting and/or quantitating the amount of] measuring total nucleic acid in said

sample by [detecting and/or quantitating] measuring the total amount of said at least one detectable species or the amount of said at least one binding species bound to said solid phase.

23. Twice Amended) A method for [the detection and/or quantitation of] measuring total nucleic acid in a sample, which comprises:

- a) mixing at least one random primer at least 4 nucleotides in length having at least one detectable species, with a sample nucleic acid,
- b) adding at least one nucleotide triphosphate having at least one binding species and optionally at least one second nucleotide triphosphate,
- c) adding at least one nucleic acid polymerase,
- d) incubating the mixture of step c), under conditions which allow said at least one

nucleic acid polymerase to be active,

e) [quantitating the amount of] measuring total nucleic acid in said sample by
[detecting and/or quantitating] measuring the total amount of said at least one detectable species
or the amount of said at least one binding species.

24. (Twice Amended) A method for [the detection and/or quantitation of] measuring
total nucleic acid in a sample, which comprises:

a) mixing at least one random primer at least 4 nucleotides in length, having at least
one binding species, with a sample nucleic acid,

b) adding at least one nucleotide triphosphate having at least one detectable species
and optionally at least one second nucleotide triphosphate,

c) adding at least one nucleic acid polymerase,

d) incubating the mixture of step c), under conditions which allow said at least one
nucleic acid polymerase to be active,

e) [quantitating the amount of] measuring total nucleic acid in said sample by
[detecting and/or quantitating] measuring the total amount of said at least one detectable species
or the amount of said at least one binding species.

25. (Twice Amended) A method for [the detection and/or quantitation of] measuring
total nucleic acid in a sample, which comprises:

a) mixing at least one random primer at least 4 nucleotides in length with a
sample nucleic acid,

b) adding at least one nucleotide triphosphate having at least one binding
moiety and optionally at least one second nucleotide triphosphate having at
least one label and optionally at least one nucleotide triphosphate,

- c) adding at least one nucleic acid polymerase,
- d) incubating the mixture of step c), under conditions which allow said at least one nucleic acid polymerase to be active,
- e) [quantitating the amount of] measuring total nucleic acid in said sample by [detecting and/or quantitating] measuring the total amount of said at least one label or the amount of said at least one binding moiety.

26. (Twice Amended) A method for [the detecting and/or quantitation of] measuring total nucleic acid in a sample, which comprises:

- a) mixing at least one labeled random primer at least 4 nucleotides in length having at least one binding species and optionally at least one second random primer at least 4 nucleotides in length having at least one detectable species, with a sample nucleic acid,
- b) adding at least one nucleic acid ligase,
- c) incubating the mixture of step b), under conditions which allow said at least one nucleic acid ligase to be active,
- d) [quantitating the amount of] measuring total nucleic acid in said sample by [detecting and/or quantitating] measuring the total amount of said at least one detectable species or the amount of said at least one binding species.

27. (Twice Amended) A method for [the detection and/or quantitation of] measuring total nucleic acid in a sample, which comprises:

- a) mixing at least one labeled random primer at least 4 nucleotides in length having at least one binding species and optionally at least one second random primer at least 4 nucleotides in length having at least one detectable species, with

a sample nucleic acid,

b) adding at least one nucleic acid ligase and at least one nucleic acid polymerase,

c) adding at least one nucleotide triphosphate,

d) incubating the mixture of step c), under conditions which allow said at least

one nucleic acid ligase and at least one nucleic acid polymerase to be active,

e) [quantitating the amount of] measuring total nucleic acid in said sample by [detecting and/or quantitating] measuring the total amount of said at least one detectable species or the amount of said at least one binding species.

38. (Amended) A method for [the detection and/or quantitation of] measuring total nucleic acid in a sample, which comprises:

a) mixing at least one random primer at least 4 nucleotides in length having at

least one first label, with a sample nucleic acid,

b) adding at least one nucleotide triphosphate having at least one second label and

optionally at least one second nucleotide triphosphate,

c) adding at least one nucleic acid polymerase,

d) incubating the mixture of step c), under conditions which allow said at least one

nucleic acid polymerase to be active,

e) [quantitating the amount of] measuring total nucleic acid in said sample by [detecting and/or quantitating] measuring the total amount of said at least one first label or the amount of said at least one second label.

39. (Amended) A method for [the detecting and/or quantitation of] measuring total nucleic acid in a sample, which comprises:

a) mixing at least one labeled random primer at least 4 nucleotides in length

having at least one first label species and optionally at least one second random primer at least 4 nucleotides in length having at least one second label, with a sample nucleic acid,

b) adding at least one nucleic acid ligase,

c) incubating the mixture of step b), under conditions which allow said at least one nucleic acid ligase to be active,

d) [quantitating the amount of] measuring total nucleic acid in said sample by [detecting and/or quantitating] measuring the total amount of said at least one first label or the amount of said at least one second label.

40. (Amended) A method for [the detection and/or quantitation of] measuring total nucleic acid in a sample, which comprises:

a) mixing at least one labeled random primer at least 4 nucleotides in length having at least one first label and optionally at least one second random primer at least 4 nucleotides in length having at least one second label, with a sample nucleic acid,

b) adding at least one nucleic acid ligase and at least one nucleic acid polymerase,

c) adding at least one nucleotide triphosphate,

d) incubating the mixture of step c), under conditions which allow said at least one nucleic acid ligase and at least one nucleic acid polymerase to be active,

e) [quantitating the amount of] measuring total nucleic acid in said sample by [detecting and/or quantitating] measuring the total amount of said at least one first label or the amount of said at least one second label.